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CLAIMS:

1. A rotary sprinkler comprising a rotor with an axle having a tip, and a thrust bearing with a socket having a bottom, said socket being adapted to receive for rotation said axle so that said tip abuts said bottom in a contact zone, wherein said
5 sprinkler further comprises at least one hard element constituting at least a part of said bottom or said tip located in said contact zone, said element being made of harder material than said axle or said socket.
2. The rotary sprinkler of Claim 1, wherein said sprinkler is dynamic.
3. The rotary sprinkler of Claim 1, wherein said hard element is able to
10 reduce wear of said tip or said bottom in said contact zone.
4. The rotary sprinkler of Claim 1, wherein said hard element has polished surface in the contact zone.
5. The rotary sprinkler of Claim 1, wherein said hard element is formed as one of the following: a plate, a ball and a pin.
- 15 6. The rotary sprinkler of Claim 1, wherein said hard element has concave surface in the contact zone.
7. The rotary sprinkler of Claim 1, wherein said hard element is made of one of the following: industrial sapphire stone, industrial ruby stone, ceramics, glass, and stainless steel.
- 20 8. The rotary sprinkler of Claim 1, wherein said hard element is a stainless steel ball locked in the bottom of said socket.
9. The rotary sprinkler of Claim 8, wherein said tip is concave.
10. The rotary sprinkler of Claim 1, wherein said hard element is a ball or a pin constituting part of said tip.
- 25 11. The rotary sprinkler of Claim 1, comprising two hard elements, one at said tip and one at said bottom.
12. The rotary sprinkler of Claim 1, wherein said socket has an inlet opening of diameter D0 and a peripheral wall between said inlet opening and said bottom, said socket being adapted to receive slidably said axle through said inlet opening,

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wherein said tip has diameter $D1$ close to $D0$ while an adjacent portion of said axle has diameter $D2 < D1$, such that, when said tip abuts said bottom, an open annular gap is formed between said axle and said peripheral wall, and when said tip is aligned with said inlet opening, said inlet opening is essentially closed.

5 13. The rotary sprinkler of Claim 12, wherein said tip is formed as one of the following: a ball, a cylinder, a cone, a disc, or another body of rotation.

14. A hard element for use in a rotary sprinkler comprising a rotor with an axle having a tip, and a thrust bearing with a socket having a bottom, said socket being adapted to receive for rotation said axle so that said tip abuts said bottom in a
10 contact zone, said hard element constituting at least a part of said bottom or said tip located in said contact zone, said hard element being made of harder material than said axle or said socket.

15. The hard element of Claim 14, wherein said hard element is able to reduce wear of said tip or said bottom in said contact zone.

15 16. The hard element of Claim 14, wherein said hard element has polished surface in the contact zone.

17. The hard element of Claim 14, wherein said hard element is formed as one of the following: a plate, a ball and a pin.

18. The hard element of Claim 14, wherein said hard element has concave
20 surface in the contact zone.

19. The hard element of Claim 14, wherein said hard element is made of one of the following: industrial sapphire stone, industrial ruby stone, ceramics, stainless steel, and glass.

20. A rotary sprinkler comprising a rotor with an axle having a tip, and a thrust
25 bearing with a socket having an inlet opening of diameter $D0$, a bottom and a peripheral wall therebetween, said socket being adapted to receive slidably and rotatably said axle through said inlet opening so that said tip can abut said bottom, wherein said tip has diameter $D1$ close to $D0$, while an adjacent portion of said axle has diameter $D2 < D1$, such that, when said tip abuts said bottom, an open annular

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gap is formed between the axle and the peripheral wall, and when said tip is aligned with said inlet opening, said inlet opening is essentially closed.

21. The rotary sprinkler of Claim 20, wherein said tip is formed as one of the following: a ball, a cylinder, a cone, a disc, or as a combination of said forms.